

The South Beach Diet

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Background

There is a major untold story currently unfolding in America. Cardiologists, endocrinologists and internists across the country who are practicing aggressive prevention have largely stopped seeing heart attacks and early strokes in their practices. They just don't get called to the emergency room for these events like they used to. Since cardiovascular disease is America's major cause of morbidity, mortality and the high cost of medical care, there is potential to greatly reduce both human and economic costs as the baby boomers age. We need only apply what is already known.

The factors that are changing the cardiac prevention paradigm include noninvasive imaging to detect and track pre-clinical atherosclerosis, advanced blood testing to determine the cause of disease in each individual, new medications that target the causes of disease like laser beams and, finally, a growing consensus on the nutritional factors associated with our epidemic of obesity and diabetes.

I am a cardiologist, not a diet doctor. My journey to authoring diet books occurred somewhat accidentally. My professional background was in clinical and academic cardiology. Until ten years ago, my primary research interest was in noninvasive imaging of the coronary arteries. Around that time, it became more and more apparent that my patients, the country and frankly myself were rapidly gaining

weight on the nationally recommended low fat, high carbohydrate diet. In fact, there had become a disconnect between the practical day to day experience of clinicians and the national guidelines. At that time, clinicians essentially stopped recommending diet interventions and began using the new statin class of medications to treat cholesterol problems. They had given up on weight loss counseling. The medical literature regarding the efficacy of low fat diets for weight loss and/or cholesterol lowering actually documented the experience of the clinicians. Low fat, high carb diets didn't work. Why not?

The low fat, high carb recommendations were made primarily on the basis of population studies that demonstrated that societies that consumed low fat diets had low rates of heart attack and obesity. High fat countries had high cholesterol levels and high heart attack rates. There were exceptions, such as Mediterranean populations and the Greenland Eskimos. In these societies, relatively high fat intake was associated with low heart attack and obesity rates. This information was disregarded. So what happened in America?

In the past 5-15 years there has been a large volume of research that has explained what went wrong with our low fat experiment. Studies have described the important role of fiber in the human diet. The concept of "glycemic index" was developed. This is a measure of how fast a particular carbohydrate causes swings in blood sugar. Rapid swings in blood sugar from high glycemic index foods cause food cravings relatively early after a meal. The syndrome of "pre-diabetes" was first described in 1989. The understanding of this syndrome taught us that a low fiber, high glycemic index diet could result in the expression of previously dormant genes that lead to obesity, pre-diabetes and

diabetes. Finally, new research demonstrated that not all fats have the same health implications. Mediterranean oils, particularly olive oils and omega 3 oils from both plants and fish sources, have favorable effects on cardiovascular and general health. This is in contrast to saturated and trans fats. Additionally, a wealth of information concerning the diets of our ancestors has been reported. For over two million years, we evolved as “hunter gatherers.” They gathered a large variety of fruits and vegetables (low glycemic, high fiber carbohydrates). They hunted animals that were sources of lean protein and healthy omega 3 fat. They also expended a lot of calories performing the exercise required to feed themselves.

With this flood of new information, the causes of our epidemic of obesity and diabetes have become apparent. 1. The type of carbohydrate consumed in the low fat countries was high in fiber and low in glycemic index while that adopted in the USA was low in fiber and high in glycemic index. 2. The consumption of unprecedented amounts of processed carbohydrates produced swings in our blood sugars that resulted in frequent cravings, increased caloric intake, obesity, pre-diabetes and diabetes. Currently, over 40% of Americans over the age of 40 are pre-diabetic. 3. Because the animal protein in our diets is from corn fed cattle and poultry that do not run free, it has high levels of saturated fat and insignificant levels of omega 3 healthy fat. 4. In an attempt to lessen our intake of saturated fat, trans fats were developed and became ubiquitous in our commercial baked goods and in our fast foods. We now know that trans fats are worse than saturated fats for our waistlines and for our blood vessels.

The South Beach Diet

In response to my own frustration with low fat dieting and counseling and the new information available, in 1995, I decided to try a different approach. I was also influenced by the beginning of the “low carb” diet trend, pioneered by Dr. Atkins. It is interesting that while this trend came from outside the nutritional establishment and was not taken seriously by it, more and more Americans were choosing low carb over low fat. While I found the low carb diet approach fascinating, I decided to go in a slightly different direction. My patients had already had heart problems or were at high risk. It was therefore not prudent to encourage saturated fat. There was too much evidence that saturated fat consumption was associated with coronary atherosclerosis. On the other hand, evidence was growing that the healthy Mediterranean fats had favorable effects on our lipids and on our health. In addition, it was clear that what was causing our epidemic of obesity was not carbohydrates per se but “processed,” rapidly digested carbohydrates. The good, non-processed carbohydrates were too rich in vitamins and nutrients to be restricted.

We developed a simple and flexible diet approach for our patients that followed the principles of good, nutrient-dense carbohydrates, good fats and lean proteins. There was no counting of calories, grams of fats or grams of carbohydrates. While calories definitely count, it was our conclusion that counting calories alone did not work. Carbohydrate choices are made on the basis of the glycemic index. Our hypothesis was that, when proper food choices were made, hunger and cravings would diminish and fewer calories would be consumed.

We adopted a staged approach. The first phase, which lasts for two weeks, is the most restrictive -- no starches, fruits or alcohol. Plenty of good vegetables are prescribed to prevent ketosis. Ketosis occurs from the breakdown of fats when the body's sugar stores are depleted. Frequent snacking is also an important component of Phase 1. The purpose of the first phase is to stop the swings in blood sugar that cause cravings. Weight loss is rapid in Phase 1, but we do not encourage continued rapid weight loss which can result in loss of muscle and bone mass which then lowers metabolism and leads to "yo yo" dieting.

In Phase 2, whole grains and whole fruits are gradually added back, beginning with the lowest glycemic index foods and proceeding up the glycemic scale. This is a slow weight loss phase -- 1-2 lbs per week. Phase 2 is also an educational phase where the dieter learns which foods and food combinations work best for him or her. The test of the diet's success is the loss of cravings and control over food intake. This phase is continued until the weight loss goal is attained. It represents the transition from diet to lifestyle.

In the third, or maintenance phase, there are no absolute food restrictions. You make choices on the basis of the pecking order of the various food groups that you learned in Phase 2. You choose brown rice rather than instant white rice, sweet potato rather than white potato, pita bread rather than refined white bread, etc. Exercise is strongly encouraged throughout for burning calories, for building and maintaining lean body mass and for cardiovascular health.

After years of frustration, I was amazed and greatly encouraged by our patients' response to our program. Weight was lost, blood chemistries improved and the diet was

found to be easy to follow. We began reporting our experience in April of 1997 at the Fourth International Symposium on Multiple Risk Factors in Heart Disease in Washington D.C. In a 3 month clinical trial of the South Beach Diet vs. the severe fat restricted American Heart Association Step 2 Diet (which has since been abandoned) we showed that the South Beach Diet group lost more weight and attained more favorable blood chemistries compared to the low fat AHA diet. These results were presented at the American College of Cardiology Scientific Sessions. The manuscript describing the study has been accepted for publication.

While long term follow-up has been anecdotal, our clinical experience indicates that the South Beach Diet can truly become a lifestyle. Weight loss can be sustained and the manifestations of pre-diabetes and, often, of type 2 diabetes can be reversed. Prospective diet studies are particularly difficult and costly to perform. Decisions must be made on the totality of evidence available from many sources.

In 1999, local TV asked us to put South Florida on the South Beach Diet which we did very successfully in the month of May for 3 years running. This led us from the clinical and academic realm to the public sector.

The success of the South Beach Diet has given me a unique opportunity to help change the way America eats. I am looking forward to this campaign. We have recently established a not-for-profit research institute directed by Dr. Charles Hennekens to further study nutrition and other aspects of cardiac prevention. Longer term diet studies are planned. We are also planning studies of interventions in schools since the epidemic of obesity and diabetes has extended to younger and younger age groups. We believe

that improved nutrition and exercise will not only help prevent obesity and diabetes but can also help improve the behavior and academic performance of our children.

How can the principles of the South Beach Diet be used to update federal guidelines? The following are my suggestions:

1. The diet pyramid should be updated as planned. The base should be occupied by the good carbohydrates -- vegetables, whole fruits and whole grains. The next level should include lean proteins, low-fat dairy products and the good fats. Above that level should be saturated fats, then processed carbohydrates and at the apex, trans-fats.
2. Vigorous physical fitness guidelines should be developed for our schools.
3. The benefits of proper diet and exercise must become part of school curricula.
4. Continuing efforts to update food labels are helpful. The presence of trans- fats must be identified.

Conclusion

I believe that the principles of good, nutrient-dense carbohydrates, good fats, lean proteins and plenty of exercise have recently become the consensus of scientific opinion. If applied successfully to the American lifestyle, our epidemic of obesity and diabetes can be reversed.